

REMARKS

This Supplemental Amendment is responsive to a non-final Office Action mailed by the Office on June 3, 2002. Claims 17-33 and 35-54 are pending in the application.

Applicant has amended claims 17, 19-30, 33, 35 - 41, 44, 47 - 49, and 53. The foregoing amendments have not been made to overcome the art cited by the Office Action. Rather, the amendments have been made to delete unnecessary terms and to clarify and broaden the pending claims. Support for the amendments may be found in the specification and the original claims. No new matter has been added. Applicant submits that the pending claims are allowable.

Conclusion

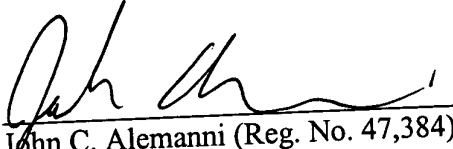
Applicant respectfully submits that claims 17-33 and 35-54 are allowable.

Applicant believes that no fee is due for this Supplemental Amendment. If this is incorrect, however, the Commissioner is authorized to charge any additional fees that may be due, or credit any overpayment, to Deposit Account No. 16-1435.

A favorable Office Action is respectfully solicited. The Examiner is invited to contact the undersigned at (336)-607-7311 to discuss any matter related to the application.

Respectfully submitted,

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CLAIMS WITH MARKINGS TO SHOW CHANGES/AMENDMENTS MADE

In accordance with 37 CFR 1.121(c), the following version of the claims, as rewritten by the foregoing amendments, shows the changes made relative to previous versions of the claims.

Please amend claim 17 as follows:

17. (twice amended) An apparatus comprising:
a housing;
a tracking element disposed within said housing operable to track a motion of said housing in x- and y-directions with respect to a flat surface; and
a movement generator disposed within and coupled to said housing, said movement generator [delivering] configured to deliver a tactile sensation in response to a sensory feedback signal received over a signal channel.

Please amend claims 19-30 as follows:

19. (twice amended) An apparatus as recited in claim 18 wherein said sensory feedback signal is configured to convey[s] a particular vibration frequency by a coding of pulse sequences.

20. (twice amended) An apparatus as recited in claim 17 wherein said movement generator is operable to generate[s] said [motion in said entire housing of said computer mouse device] tactile sensation over the entirety of said housing.

21. (twice amended) An apparatus as recited in claim 17 further comprising a resilient material, said resilient material configured to enable[enabling] said delivery of said tactile sensation [motion] by storing and releasing energy.

22. (twice amended) An apparatus as recited in claim 17 wherein said housing [includes] comprises a casing portion and a lower portion, wherein said

movement generator is operable to generate[s] a motion in said casing portion with respect to said lower portion.

23. (twice amended) An apparatus as recited in claim 22 further comprising a resilient material, said resilient material [being located] disposed within said housing between said casing portion and said lower portion.

24. (twice amended) An apparatus as recited in claim 17 wherein said movement generator [is]comprises an electromagnetic actuator.

25. (twice amended) An apparatus as recited in claim 17 wherein said movement generator is [activated]further operable to deliver said tactile sensation in response to a movement corresponding with graphical details on a graphical display, wherein at least one of said graphical details is a border of a window.

26. (twice amended) An apparatus as recited in claim 17 wherein said movement generator is [activated]further operable to deliver said tactile sensation in response to a movement corresponding with graphical details on a graphical display, wherein at least one of said graphical details is an icon.

27. (twice amended) An apparatus as recited in claim 17 wherein said movement of said housing [includes]comprises a vibration of said housing and wherein different graphical details of a graphical display [are coded with]correspond to different vibration frequencies.

28. (twice amended) An apparatus as recited in claim 17 wherein said movement generator is operable to generate[s] a motion of said housing by impacting said housing with a moving portion of said movement generator.

29. (twice amended) An apparatus as recited in claim 28 wherein said movement generator configured to impact[s] said housing at a location underneath a top surface of [palm of a user when said palm contacts] said housing.

30. (twice amended) An apparatus comprising:
a housing [including]comprising a lower portion and an upper portion, said lower portion designed to move over a flat surface;
a tracking element [provided]disposed within said housing for tracking motion of said housing with respect to said flat surface; and
a movement generator [included]disposed within and coupled to said housing configured to generate [for generating] motion of said housing with respect to said flat surface, and further configured to deliver a tactile [that delivers a bump] sensation through said housing[, said movement generator delivering said bump sensation] in response to a sensory feedback signal received over a signal channel.

Please amend claim 33 as follows:

33. (twice amended) An apparatus as recited in claim 30 wherein said motion of said housing [includes]comprises a vibration of said housing and wherein said sensory feedback signal is configured to convey[s] a particular vibration frequency by a coding of pulse sequences.

Please amend claims 35 – 41 as follows:

35. (twice amended) An apparatus as recited in claim 30 further comprising a resilient material, said resilient material configured to enable[enabling] said bump sensation by storing and releasing energy.

36. (twice amended) An apparatus as recited in claim 30 wherein said movement generator is operable to generate[s] said motion in an upper portion of said housing with respect to a lower portion of said housing.

37. (twice amended) An apparatus as recited in claim 36 further comprising a resilient element, said resilient element [being located]disposed within said housing between said upper portion and said lower portion.

38. (twice amended) An apparatus as recited in claim 30 wherein said movement generator [includes]comprises an electromagnetic actuator[electromagnets].

39. (twice amended) An apparatus as recited in claim 30 wherein said movement generator is configured to activate[d] in response to movement corresponding with graphical details on a graphical display, wherein at least one of said graphical details is a border of a window.

40. (twice amended) An apparatus as recited in claim 30 wherein said movement generator is configured to activate[d] in response to movement corresponding with graphical details on a graphical display, wherein at last one of said graphical details is an icon.

41. (twice amended) An apparatus as recited in claim 30 wherein said motion of said housing [includes]comprises a vibration of said housing and wherein different graphical details [are coded with]correspond to different vibration frequencies.

Please amend claims 44 as follows:

44. (twice amended) A method as recited in claim 43 wherein a movement generator is configured to generate[s] vibrations of varying frequency corresponding to different graphical details on a graphical display.

Please amend claims 47 – 49 as follows:

47. (twice amended) A method as recited in claim 43 wherein said movement generator is configured to activate[d] in response to movement corresponding

with graphical details on a graphical display, wherein at least one of said graphical details is a border of a window.

48. (twice amended) A method as recited in claim 43 wherein said movement generator is configured to activate[d] in response to movement corresponding with graphical details on a graphical display, wherein at least one of said graphical details is an icon.

49. (twice amended) A method as recited in claim 43 wherein said motion of said casing portion [includes]comprises a vibration of said casing portion and wherein different graphical details [are coded with]correspond to different vibration frequencies.

Please amend claim 53 as follows:

53. (twice amended) A method as recited in claim 43 [wherein a cursor can be positioned within the borders of one of a plurality of graphical details, wherein said cursor is caused to remain within said borders until said cursor is released by pressing down said casing portion of said mouse device.], further comprising:
limiting a movement of said cursor to within a border of a graphical detail on a graphical display; and
releasing said cursor when said casing portion is pressed down with respect to said bottom portion.